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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,498	07/11/2003	Rich Huang	252011-1520	5392

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EXAMINER

ADAMS, GREGORY W

ART UNIT PAPER NUMBER

3652

DATE MAILED: 03/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/618,498

Applicant(s)

HUANG ET AL.

Examiner

Gregory W. Adams

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 10, 13-15, 19, 22 and 23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 10, 13-15, 19, 22 and 23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-6, 10, 13-15, 19 & 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fosnight (US 5,980,183) in view of Schurch et al. (US 3,698,3326) and Perlov et al. (US 6,283,692). Fosnight discloses a load port transfer device 34, 42 including a load port 50, a transport rail vertical portion 122b beside an overhead conveying system 118 wherein a vertical portion top portion is beside an overhead conveying system and extends from a load port 110 and a horizontal portion 130a-b is above a conveying system 118, a robot 116 (FIG. 10; C9/L33-39; C10/L1-10) which moves along a rail to transfer a wafer carrier between a load port 50 and an overhead conveying system 30, 270, flange 120 and does not disclose a roller and timing belt.

Schurch et al. disclose a transport rail vertical portion 2a, a transport rail horizontal portion 2 wherein a vertical portion top portion connects to a horizontal portion, and a robot 4, 5, 7 that moves along vertical and horizontal portions. Schurch further discloses a robot moving mechanism 4, 5, 7 having rollers disposed along a rail and a robot holding mechanism 19, 21 that maintains a carrier 20 horizontal wherein a holding mechanism first end is removably connected to a carrier 20 and holding mechanism second end is movably connected to a moving mechanism 4, 5, 7. Schurch

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teaches that in the art of conveying over horizontal and vertical rails by movably connecting a holding mechanism to a moving mechanism it is advantageous to maintain a container 20 in vertical position. Cols. 1-2. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Fosnight's vertical rail with a rail having a vertical portion connected to a horizontal portion and a robot having rollers, as per the teachings of Schurch, such that during conveying a carrier is maintained in vertical position.

Perlov discloses a timing belt to drive a robot both vertically and horizontally. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a mechanism of Fosnight to include a timing belt, as per the teachings of Perlov, to drive a robot vertically and horizontally.

Response to Arguments

Applicant's arguments filed January 27, 2006 have been fully considered but they are not persuasive.

With respect to claims 1, 13 & 22-23, Applicant argues that Schurch does not disclose a horizontal portion "located above the conveyor". Fosnight discloses a robot 116 that moves along horizontal and vertical portions of a rail wherein a horizontal portion is above a conveyor system (FIG. 4: 118).

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was

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within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). In this case, in replacing Fosnight's rail and robot Schurch recognizes that "in the event that the transport units must also travel over vertical or inclined track rails, then special measures have to be undertaken if a prerequisite of the conveying operation requires the load containers to be continuously transported in a vertical or near vertical position." C/L16-20.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory W. Adams whose telephone number is (571) 272-8101. The examiner can normally be reached on M-Th., 8:00-5.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen Lillis can be reached on (571) 272-6928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GWA



EILEEN D. LILLIS
SUPERVISORY PATENT EXAMINER
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